

CLAIMS

1. A multinode arrangement for establishing a communication network for transmitting information between the first object and a second objects, comprising:
 - a plurality of nodes;
 - wherein the plurality of nodes includes at least the first node and a second node, wherein the first node and the second node are connected by and communicate through a hardwire connection; and
 - wherein the plurality of nodes includes at least a third node that communicates with at least the first node or the second node through an RF communication link.
2. The multinode arrangement according to claim 1, wherein the plurality of nodes establishes a communication network between the first object and the second object.
3. The multinode arrangement according to claim 1, wherein the plurality of nodes comprises:
 - a plurality of node pairs; and
 - wherein each of the node pairs is connected by a hardware connection.
4. The multinode arrangement according to claim 3, wherein at least one of the nodes of at least one of the node pairs is adapted to communicate with another of the nodes of a second of the node pairs through an RF communication link.

5. The multinode arrangement according to claim 4,
wherein:

the node pairs are distributed in an end to end fashion; and
each node of a node pair that is proximate a node of a
different node pair is adapted to communicate with the node of the
different node pair through an RF communication link.

6. The multinode arrangement according to claim 5,
wherein the node pairs are located at least partially in a passage.

7. The multinode arrangement according to claim 6,
wherein:

the node pairs form a communication network between the
first object and the second object; and

wherein the first object is located inside the passage and the
second object is located outside the passage.

8. The multinode arrangement according to claim 7,
wherein the first object is a digital camera and the second object is
a device that captures digital information, wherein the
communication network passes picture information from the digital
camera to the device that captures digital information.

9. The multinode arrangement according to claim 5,
wherein:

each node of a node pair that is proximate a node of a
different node pair is adapted to establish communication with the
node of the different node pair by transmitting a hello signal to the
node of the different node pair.

10. The multinode arrangement according to claim 9,
wherein:

each node of the node pair is adapted to transmit the hello
signal at predetermined a frequency and signal strength.

11. The multinode arrangement according to claim 10,
wherein:

each node of the node pair is adapted to reduce the signal
strength of the hello signal after a communication link is established
with the node of the different node pair until the communication link
is broken; and

each node of the node pair is adapted to increase the signal
strength of the hello a predefined amount after the communication
link is broken to reestablish the communication link.

12. The multinode arrangement according to claim 5,
wherein:

each node of the node pair is adapted to establish a second
communication link with another node of the different node pair if
the communication link is broken.

13. The multinode arrangement according to claim 12,
further comprising a means for preventing the second
communication link from interfering with another communication link
between two of the plurality of nodes.

14. The multinode arrangement according to claim 5, wherein at least one of the nodes comprises a means for receiving information from multiple nodes and transmitting information to multiple nodes.

15. A multinode arrangement for establishing a communication network for transmitting information between the first object and a second object, comprising:

a communication means for communicating information from the first object to the second object across a plurality of nodes that communicate through RF and hardwire communication links.

16. The multinode arrangement according to claim 15, further comprising:

a reestablishing means for reestablishing a communication link between at least two of the plurality of nodes when an original communication link between the two of the plurality of nodes is broken.

17. The multinode arrangement according to claim 16, further comprising:

a noninterference means for preventing the reestablished to communication link from interfering with a communication link between at least two of the plurality of nodes.

18. The multinode arrangement according to claim 15, wherein at least one of the nodes comprises a means for receiving information from multiple nodes and transmitting information to multiple nodes

19. A method for providing a communication network between a first object and a second object, comprising:

- providing a plurality of node pairs, wherein each of the node pairs comprises at least two nodes that are connected by and communicate through a hardwire connection;
- distributing the plurality of node pairs between the first object and the second object; and
- establishing a communication network by linking nodes of node pairs with nodes of other node pairs, wherein the linking comprises RF communication links.

20. The method according to claim 19, wherein for each node of a node pair, the step of establishing further comprises:

- transmitting a hello to a node of an adjacent node pair; and
- establishing a communication link between the node and the adjacent node if a response is received from the adjacent node.

21. A method according to claim 20, further comprising:

- transmitting the hello at a predefined signal strength;
- reducing the signal strength if the response is received until the communication link is broken; and
- increasing the signal strength a predetermined amount to reestablish the communication link.

22. The method according to claim 19, for any of the nodes of the node pairs, further comprising reestablishing an RF communication link between the node and an adjacent node pair and RF communication link between the node and an adjacent node of the adjacent node pair is broken.

23. The method according to claim 22, wherein the step of reestablishing further comprises:

transmitting a hello from the node;

receiving the hello with another node of the adjacent node pair; and

establishing the second RF communication link between the node and the other node of the adjacent node pair.